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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,664	07/14/2006	Sai Shankar Nandagopalan	PHUS030247	2487

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EXAMINER

OBAYANJU, OMONIYI

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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02/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,664	Applicant(s) NANDAGOPALAN, SAI SHANKAR	
	Examiner OMONIYI A. OBAYANJU	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/02/2008, 01/23/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/2/2008 have been fully considered but they are not persuasive.
2. Applicant argues that Applicant argues that "the transmission time of the wireless stations are not necessary approximately the same". Applicant further argues that "Cimini fails to disclose the claimed feature: *determining an allocated transmission time for each of the plurality of wireless stations based on a set physical transmission rate*".
3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *the transmission time of the wireless stations are not necessary approximately the same*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
4. In response, examiner respectfully disagrees with applicant's argument. Cimini, JR. et al. in pg. 3, teaches determining an allocated transmission time for each of the plurality of wireless stations(t_1 , t_2) based on a set physical transmission rate (R_1 , R_2) (pg. 3, pp0034-pp0037).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cimini, JR. et al. (US Publication No. 20030133427).

7. As to claim 1, Cimini teaches a method of providing bandwidth fairness in a wireless network (abs, and pg. 4, pp0049, lines 7-8), the method comprising: determining bandwidth requirement (abs, and pg. 3, pp0036, lines 1-8) for a particular service interval (pg. 1, pp0005 lines 13-16) for each of a plurality wireless stations in a network (fig. 1b, #12a,b,c); determining an allocated transmission time for each of the plurality of wireless stations based on a minimum physical transmission rate (pg. 3, pp0034 lines 14-16, and pp0037, lines 1-5); and fragmenting a packet of at least one of the wireless stations if the at least one wireless station transmits at other transmission rates that are less than the minimum physical transmission rate (pg. 5, pp0060, lines 1-4 and pp0048, lines 13-15).

8. As to claim 2, Cimini teaches wherein the allocated time for each of the plurality of wireless stations is the proportional to the quantity of data to be sent by the respective stations (abs) during a service interval (pg. 1, pp0005 lines 13-16).

9. As to claim 3, Cimini teaches wherein for each of the at least one wireless station a number of the fragments is equal to the minimum physical transmission rate divided by the respective other transmission rate (pg. 4, pp0042 lines 7-11).

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10. As to claim 4, Cimini teaches wherein the allocated time is equal to the total data of all packets generated in the beacon interval divided by the minimum physical transmission rate (pg. 4, pp0049).

11. As to claim 5, Cimini teaches wherein the wireless network is a multiple physical transmission rate wireless network (pg. 2, pp0030, lines 5-10).

12. As to claim 6, Cimini teaches wherein the wireless network is a Generalized Packet Radio Service (GPRS) network (pg. 1, pp0003, lines 11-12, Transmitting data at different transmitting rate is equivalent to (GPRS) network).

13. As to claim 7, Cimini teaches where in wireless network is a Wireless Local Area Network (WLAN) (pg.1, pp0003, line 1).

14. As to claim 8, Cimini teaches wherein each of the at least one wireless stations transmits all remaining fragments after all wireless stations that transmit at the minimum physical transmission rate have completed transmitting their packets (pg. 5, pp0062, lines 1-5).

15. As to claim 9, Cimini teaches further comprising maintaining a particular quality of service QoS for each of the wireless stations that maintain transmission at the minimum physical transmission rate during a service interval (pg. 3, pp0037 lines 8-15).

16. As to claim 10, Cimini teaches wherein each of the at least one wireless stations transmits all remaining fragments (fragments equivalent to packet) until its physical transmission rate is greater than the minimum physical transmission rate (pg.5, pp0057, lines 1-7).

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17. As to claim 11, Cimini teaches A wireless network, comprising: at least one access point (fig. 1b, #12d); and a plurality of wireless stations (fig. 1b, #12a, b, c), wherein in each service interval (pg. 1, pp0005 lines 13-16), the access point (fig. 1b, #12d) allocates a transmission time for each of the wireless stations based on their transmission requirements at a minimum physical transmission rate (pg. 3, pp0034 lines 14-16, and pp0037, lines 1-5) that is fixed for the service interval.
18. As to claim 14, Cimini teaches wherein a number of fragments is equal to the lower transmission rate divided by the minimum transmission rate (pg. 4, pp0042 lines 7-11).
19. As to claim 15, Cimini teaches wherein the transmission time is equal to the total data of all packets generated in the beacon interval divided by the minimum physical transmission rate (pg. 4, pp0049).
20. As to claim 16, Cimini teaches wherein each of the plurality of wireless stations is adapted to transmit at multiple physical transmission rates (pg. 2, pp0030, lines 5-10).
21. As to claim 17, Cimini teaches wherein the wireless network is a Generalized Packet Radio Service (GPRS) network (pg. 1, pp0003, lines 11-12, Transmitting data at different transmitting rate is equivalent to (GPRS) network).
22. As to claim 18, Cimini teaches where in wireless network is a Wireless Local Area Network (WLAN) (pg.1, pp0003, line 1).
23. As to claim 19, Cimini teaches wherein a particular quality of service (QoS) is maintained for each of the plurality of wireless stations that transmit at the minimum physical transmission rate for the entire service interval (pg. 3, pp0037 lines 8-15).

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24. As to claim 20, Cimini teaches wherein each of the wireless stations that change their transmission rate to a lower transmission rate than the minimum physical transmission rate during the service interval (pg. 1, pp0005 lines 13-16) send their remaining fragments after all wireless station that transmit at the minimum transmission rate have completed transmission of their respective packets (pg. 5, pp0062, lines 1-5).

Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMONIYI A. OBAYANJU whose telephone number is (571)270-5885. The examiner can normally be reached on Mon - Fri, 7:30 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571-272-7605. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. A. O./
Examiner, Art Unit 2617

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art
Unit 2617